μ m in diam.

Geographical distribution: The species *Saccoloma elegans* Klf. has not been collected outside Brazil, while the morphologically closely related *S. chartaceum* is reported as very wide spread in the Americas. Interestingly this species has not been collected from the areas of distribution of *S. elegans*. *Saccoloma elegans*, though reported as common in Bahia and rare in other places, has not been collected since 1939. The species *S. chartaceum* is reported as very common in Panama and Canal zone, Columbia, Venezuela, Guianas, Ecuador, Peru and Bolivia, its distribution in Cuba, Jamaica, Haiti, Rep. of Dominica, Trinidad, Brit. Honduras, Honduras, Guatemala, Nicaragua, Costa Rica and Brazil, is reported as "Scattered or not at all common".

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A NEW SPECIES OF GENUS *CREIGHTONELLA* COCKERELL, (HYMENOPTERA : APOIDEA : MEGACHILIDAE), FROM CENTRAL INDIA[1]

RAJIV K. GUPTA[2]

(With seven text-figures)

The genus *Creightonella* Cockerell, from India, is represented by 3 species, namely: *Albifrons* (Smith), *bellula* (Bingham) & *fraterna* (Smith), A new species *Creightonella mitchelli* has been described for the first time from Jabalpur (Madhya Pradesh). It has certain close affinities with *C. albifrons* (Smith).

Genus *Creightonella* Cockerell, 1908 (type-species *Megachile mitimia* Cockll.), was originally proposed as a subgenus for some African species of genus *Megachile* Latreille. Michener (1962) upgraded it to generic rank and later (1965), while working with old world Megachilidae, the recategorised numerous species of *Megachile* to *Creightonella*.

C. albifrons (Smith), *C. bellula* (Bingham) & *C. fraterna* (Smith) are the 3 representatives which inhabit Indian territories. The following combination of characters can distinctly separate the genus *Creightonella* from the rest of the megachiline genera:

Form large, parallel sided; integument black with golden- yellow or snowy-white pubescence.

MALE: Mandible six toothed with small incomplete cutting edges in second to fourth interspaces; mid and hind basitarsi much shorter and narrower than corresponding tibiae; claws simple; VIth tergum scarcely concave in profile, without

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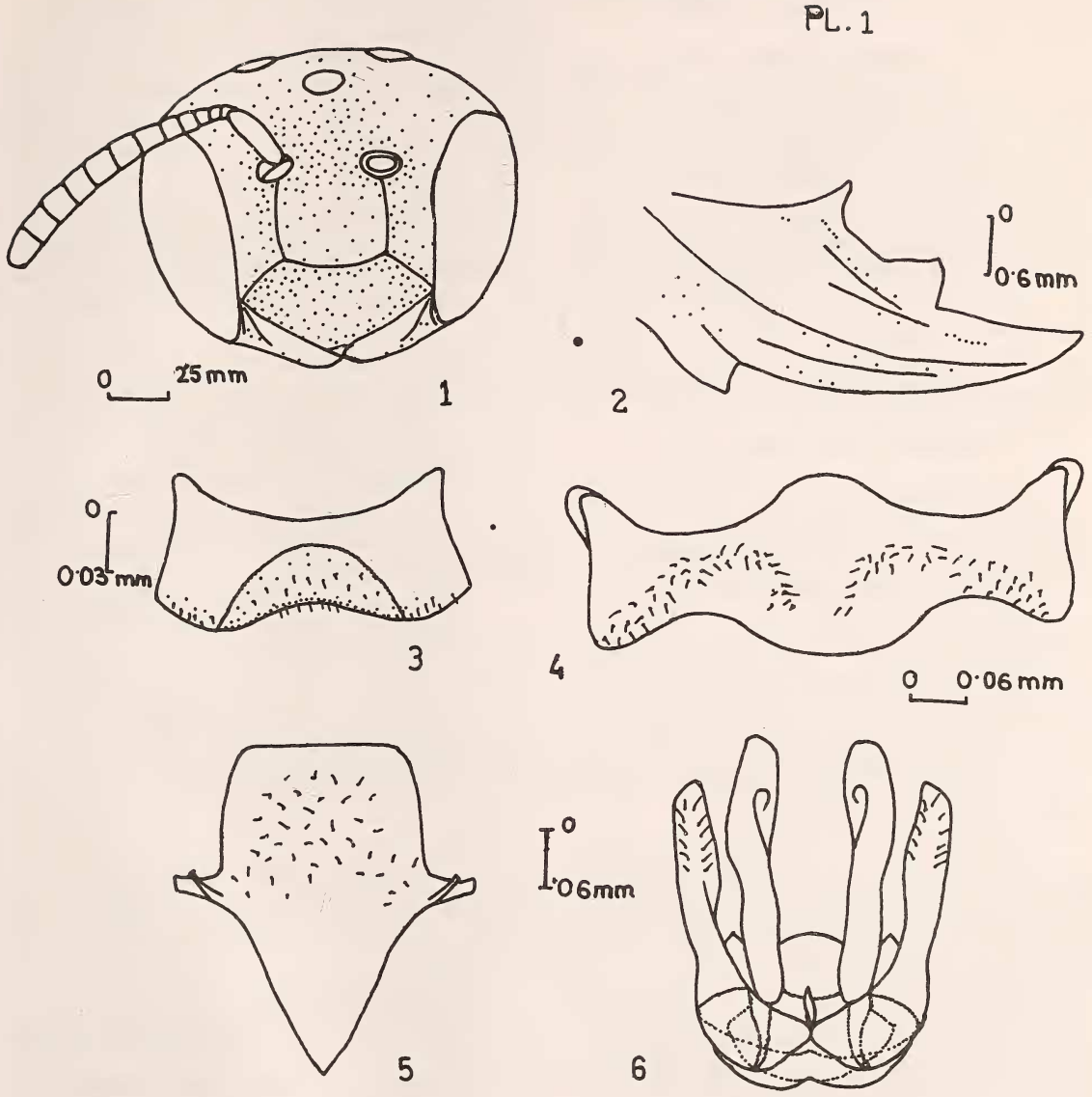

Figs. 1-7. *Creightonella mitchelli* sp. nov.
Male: 1. Head, front view; 2. mandible; 3. tergum VIth; 4. tergum VIIth; 5. sternum VIth; 6. sternum VIIIth; 7. genitalia. (Dots on Figs. 1 & 2 indicate pubescence).

projecting apex, lateral margins nearly straight and surface with longer hairs; VIth sternum with scopal hairs over almost entire surface except apical margin; sterna lacking in any apical fasceae of pale hairs.

FEMALE: Mandible tridentate, lower margin with only a median projection; front coxa with blunt inner apical spine; front tarsi unmodified or slightly broadened; carina of VIth tergum broadly expanded with a mediolongitudinal ride and margin of carina with strong lateral teeth; VIIth tergum with prominent longitudinal median ridge, margin strongly convex; six exposed sterna; Vth and VIth sterna without membranous zones demarking medasternites; VIIIth sternum like a transverse plate, apex hairy and long spiculum; gonostyles of genitalia slender, apically not lobed.

Creightonella mitchelli[3] sp. nov.

MALE: Integument black, ventral surface, legs, tergal margins, with redness; pubescence including on face & abdominal fasceae snowy white, tarsi with golden and on tibiae black.

Head slightly wider than median length; clypeal margin laterally angulate and medially invaginated; mid-facial groove absent; eye margin with a fine but elevated carina; genal maximum width equal to the eye width in lateral view, narrowed above, margin with slightly elevated carina; mandible tridentate, with a prominent median projection at lower margin.

Scutum broadly convex, pubescence white with few black erect hairs inbetween; pronotal carinate ridge produced anteriorly; first recurrent vein at the base and second one slightly far from the apex, of second cuboital cell of fore wing, wing colour pale-hyaline and veins black to brown piceous; second tarsus of fore leg much broadened; length of basitarsi of mid and hind leg more than half of the corresponding tibiae.

Basal tergal concavity margin carinate; apical fasceae of Ist to IVth terga confined to lateral patches, on Vth onwards discal pubescence appear as ferruginous hairs; VIth tergal carina not angulated with rest of the dorsal surface, with 6 acute teeth, dorsal longitudinal ridge diminishes quite before carina, either side of ridge shallowly concave, tergal apical margin below - invaginated, carinate and infasciate; VIIth tergum with a prominent longitudinal ridge from basal to apical margin, medially; basal sternum much expanded, margin shortly fringed and carinate, surface hairy; density of discal pubescence go on reducing from IInd to VIth sternites; margin broadly outcurved in IInd, straight in IIIrd and IVth and medially invaginated in Vth sternite; marginal fasceae increases in length upto Vth but lacking at the medial invagination of Vth sternum; VIth sternite: exposed, apical margin acutely outcurved, infasciate, laterally confined gradulus 'hairy'; VIIth sternite: apical margin entirely produced to broad apical lobe, rim with minute but complete fringe as in VIth; apical margin of sternum VIIIth broadly invaginated, fringed but basal process prominently elongated.

Genital gonobase extremely narrow; gonostyli slender, diverging; stipites of penis somewhat parallel sided, exceeding gonoforceps in length; genital aperture wide.

Measurements: (in mm.): Total length 12.5; eye: length 2.01, lateral width 1.0; clypeus: median length 0.8, basal and apical widths 0.92 and 1.7; antennae: length of scape 0.55, pedicel 0.12, flagellar segments Ist 0.5, IInd 0.45, VIth 0.5 and XIth 0.51 and breadths of VIth 0.2 and XIth 0.3; labrum: median length 1.0, basal and apical widths 0.9 and 0.5; labial palpi: length of segment Ist 0.75 and IInd 0.6; scutum: median length and maximum width 1.6 and 2.7; total length of fore wing 7.25 and of radial cell 1.75; relative median widths of tergite Ist to VIth 1.5, 2.75, 2.7, 2.5, 2.01, 1.75.

FEMALE: not known.

Material Examined: Holotype Male, Nehru Park, Jabalpur (M.P.), 400' m.s.l., 23-5-1981. Coll Raju Gupta; Paratype 2 males; same data as for holotype (holotype at N.P.C., Division of Entomology. I.A.R.I., New Delhi, paratypes will be placed at the same museum, shortly).

FLOWER RECORD: *Helianthus* sp., *Chrysanthemum* sp., *Tegetes* sp.

[3]After Late Dr T.B. Mitchell, Prof. Emeritus, Entomology, North Carolina State University, Raleigh, U.S.A.

Remarks

The new species closely resembles .*Creightonella albifrons* (Smith), however, *albifrons* distinctly differs from *mitchelli* in : interspace in between 2nd and 3rd mandibular tooth being wider, and the latter one being obtuse; wings apical half dark fuscous and basal half subhyaline; front tarsi simple and unmodified; apical fasceae on tergite Ist to IVth complete and continuous; carina of VIth tergum broadly rounded with 8 terminal obtuse teeth, medio-longitudinal ridge prominent up to the margin of carina; apical margin of sternite Vth not invaginated medially; in VIIIth sternite apical lobe rounded; gonostyli parallel sided and gonobase prominent.

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A NEW SPECIES OF GENUS *ANTHOCOPA* LEPELETIER AND SERVILLE (HYMENOPTERA : APOIDEA : MEGACHILIDAE), FROM ORISSA, INDIA[1]

Rajiv K. Gupta[2]

(With six text-figures)

Anthocopa anonyma, A. cathena, A. indostana (all by Cameron) and *A. matheranensis* Michener were earlier described from within Indian limits. *A. auriculata* a new species, has been described for the first time from Konark (Orissa). It has some close affinities to *A. indostana.*

The Genus *Anthocopa* Lepeletier and Serville in the strict sense of Michener (1941, 1944), was earlier represented by 4 species from India, namely: *anonyma, cathena, indostana* (all by Cameron 1904, described in genus *Megachile* Latr., from Deesa, Sind) and *Matheranensis* Michener (1966, from Pune). Before proceeding to the description of the new species, I wish to enumerate the distinct characteristics of genus-Anthocopa, which separate it from the closely related genera *Hoplitis* Klug and *Osmia* Panzer.

"Small, robust, black bees with dense pubescence cover on face, legs and mesosoma; scutellum normal in profile or slightly above to oblique (not so much as in *Osmia*), usually metanotum moves upto the upper longitudinal line of mesosoma; parapsidial lines linear and distinct; anterior face of mesepisterna not separated from the lateral one with a carina or ridge; legs with distinct arolia; pregradular area of second tergum broadly-shallowly concave transversely; gradulus of second tergum may be-

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[3]After the golden pubescens of the body.